**LPDES PERMIT NO. LA0079740, AI No. 12483**

**LPDES STATEMENT OF BASIS**
FOR THE DRAFT LOUISIANA POLLUTANT DISCHARGE ELIMINATION SYSTEM
(LPDES)PERMIT TO DISCHARGE TO WATERS OF LOUISIANA

**Company/Facility Name:** TIN, Inc., Temple-Inland
Southwest Louisiana Lumber Operations
P. O. Box 1057
DeQuincy, Louisiana 70633

**Issuing Office:** Louisiana Department of Environmental Quality
Office of Environmental Services
Post Office Box 4313
Baton Rouge, Louisiana 70821-4313

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**Date Prepared:** January 22, 2009

## I. PERMIT ACTION/STATUS:

A. Reason for Permit Action:

Proposed reissuance of a Louisiana Pollutant Discharge Elimination System (LPDES) permit for a 5-year term.

B. LPDES permit:

Effective date: July 21, 2003
Expiration date: July 20, 2008

C. Date Application Received:

The renewal application was received on February 6, 2008. Additional laboratory data needed to process the renewal application was received on March 11, 2008.

## II. FACILITY INFORMATION:

A. Location:

3442 Highway 12 East in DeQuincy, Beauregard Parish
Latitude 30° 28' 56", Longitude 93° 19' '31"

B. Applicant Activity:

According to the application, Temple-Inland (TIN) operates the Southwest Louisiana Lumber Operations (SWLA), which produces dimensional pine lumber and wood chips. SWLA is located approximately six (6) miles east of DeQuincy on the south side of Highway 12. Located on approximately 80 acres of land, the facility is surrounded by private land used predominantly for timber production, with a small amount designated as pastureland.

SWLA is a high production, low manpower sawmill. The sawmill is designed to produce up to 198 MM board feet per year on a nominal basis (through the kilns).

A forty-ton pedestal mounted crane and a portable loader are used to unload and handle logs delivered to the site by trucks. Tree-length logs are stored in the log yard adjacent to the plant site. Logs under the crane are stored under wetdeck conditions using water recycled from the log irrigation pond. Wetdecking in the adjacent satellite log yard is accomplished using once through well water from two (2) onsite wells. This water is then discharged through Outfall 007.

Initially, logs are debarked using a dry ring debarker and cut into usable lengths. Bark from the debarker and log conveyor, sawdust from the cutoff saws and sawmill, tops, chunks and tree debris are collected and conveyed by a chain conveyor to a bark hog. The bark hog, using an enclosed bottom gravity discharge, delivers the processed wood byproducts to the sawdust truck bin by a belt conveyor.

After debarking and cutting to usable lengths, large treetops for pulpwood are conveyed to the topwood chipper for conversion to pulpwood chips. This chipper also utilizes an enclosed bottom, gravity discharge type unit. Chips are collected in a surge chamber and deposited directly into a closed chain/vibrating pan/belt conveyor system for delivery to the pulpwood chip storage bins (after screening) for truck and railcar loading. Larger pieces are processed by two additional enclosed bottom, gravity discharge type chippers and delivered by conveyors to the chip storage bins (after screening) for truck and rail car loading.

The lower floor of the sawmill is a combination of chain and/or vibration conveyor systems. Wet sawdust and chip fines are conveyed to the wet wood fuel/bark collections system for delivery to the sawdust truck bin. This material is shipped to other sites by truck for use as boiler fuel or raw material. Transfer of wood chips, wet sawdust, and bark is accomplished using slow moving chains, covered belt conveyors or vibrating conveyors.

After exiting the sawmill and prior to being kiln dried, rough-cut green lumber is transferred to the sorter building for accumulation by size. Utilizing optimized systems of lasers and photocells and computer analyzers, the green lumber is trimmed to length, width, and thickness by the green sorter system into bundles that can be transferred by forklift to the green storage area or directly to the green stacker. Alternatively, some of this lumber may be loaded on trucks and shipped offsite.

At the green stacker, the lumber is stacked onto wheeled kiln cars for loading into one of four double-track, direct fired, high temperature lumber drying kilns. The dry kilns are heated by the direct introduction of combustion gases from a dry wood suspension burner into the kiln air recirculation plenum chamber. The burners are fired by biomass fuel from shavings, sawdust and trim from the planer mill.

After drying, the lumber is transferred to a cooling shed and allowed to equalize with ambient temperature and humidity. Rough lumber is then loaded onto a conveyor that feeds the planer machine and trimmer for finishing. Kiln-dried wood byproducts from the planner and trim saws is picked up by a low pressure, high volume suction system and transferred to the storage bin. This material is then used as fuel or transferred offsite for use as raw material at another mills.

Finally, dry finished lumber is graded, sorted, warehoused and shipped offsite via rail cars and trucks.

SWLA currently discharges from three final LPDES Outfalls, 004, 005 and 007, which includes Internal Outfall 107.

Outfall 004 consist of dust suppression wastewater and stormwater runoff from the north and east sides of the sawmill. This discharge includes stormwater from the north half of the sawmill, the wood chip loading area, the eastern half of the green lumber storage area, the drying kilns, the planer mill roof and the planer shavings loading area, the fuel silos and the finished lumber storage and loading areas. Screening is used to remove any debris. This treatment method is considered Best Management Practice (BMP).

Outfall 005 consist of dust suppression wastewater and stormwater runoff from the south side of the sawmill with includes the bark hog, screen, storage and loading area, the west side of the lumbar storage area, the sorter area and the oil storage area. Additionally, "washdown" water is listed as part of the discharge to this outfall. This "washdown" water is required by SWLA Part 70 Operating Permit 0320-00018-V2 for dust suppression for the portion of road in the wood yard. Water used for dust suppression is acceptable to be discharged through a stormwater outfall without any addition of controls or monitoring. Screening is used to remove any debris. This treatment method is considered BMP.

Outfall 007 is located at the southwest side of the satellite log storage area. The discharge consists of treated once-through satellite log wetdeck storage water, stormwater runoff and treated recycle irrigation pond effluent. The treated recycle irrigation pond effluent is comprised of log wetdeck water, cooling water, log chain lubrication water, stacker washdown, fire protection pond overflow, stormwater runoff and previously treated sanitary wastewater and non-contact saw filing cooling water from Internal Outfall 107. The use of a sediment pond and screening for debris is the treatment method for this outfall. This treatment is considered BMP.

The kiln condensate and kiln washdown water that was previously discharged is shipped off-site for treatment and disposal.

According to Permit No. 0320-00018-V2, SWLA has projected an increase in market demand for dimensional lumbar products. In order to meet this demand, SWLA proposes to increase the production capacity of the existing four wood-fired dry kilns and to add a fifth wood-fired dry kiln.

C. Technology Basis:

(40 CFR Chapter I, Subchapter N (Effluent Guidelines and Standards) parts 401, 405 – 415 and 417 - 471 have been adopted by reference at LAC 33:IX.4903.)

| Guideline | Reference |
|---|---|
| Barking | 40 CFR Part 429, Subpart A |
| Wet Storage | 40 CFR Part 429, Subpart I |
| Sawmills and Planing Mills | 40 CFR Part 429, Subpart K |

Other Sources of Technology Based Limits:
LDEQ Stormwater Guidance, letter dated 6/17/1987, from J. Dale Givens (LDEQ) to Myron Knudson (EPA Region 6)
Louisiana Water Quality Management Plan for Sanitary Discharges
Best Professional Judgment
Best Management Practice
Current LPDES permit (effective August 1, 2003)
NPDES permit (effective April 1, 1997)
LPDES permit LAG530000

D. Fee Rate

1. Fee Rating Facility Type: Minor
2. Complexity Type: II
3. Wastewater Type: III
4. SIC code: 2421

E. Intermittent Facility Effluent Flow - 1.756 MGD

## III. RECEIVING WATERS:

**Cowpen Creek**: (Outfalls 004 and 005)

A. River Basin: Calcasieu River Basin, Segment No. 030802

B. Designated Uses:

1. primary contact recreation
2. secondary contact recreation
3. propagation of fish and wildlife
4. agriculture

**Tiger Glade Creek**: (Outfall 007)

A. River Basin: Calcasieu River Basin, Segment No. 030802

B. Designated Uses:

1. primary contact recreation
2. secondary contact recreation
3. propagation of fish and wildlife
4. agriculture

## IV. OUTFALL INFORMATION:

Outfall 004

A. Type of wastewater – the discharge of dust suppression wastewater and stormwater runoff from the north half of the sawmill, the wood chip loading area, the eastern half of the green lumber storage area, the drying kilns, the planer mill roof and the planer shavings loading area, the fuel silos and the finished lumber storage and loading areas.

B. Location – at the point of discharge prior to combining with other waters Latitude 30°28' 60", Longitude 93° 19' 25"

C. Treatment – Screening

D. Flow – Intermittent – 1.731 MGD

E. Receiving Waters – Cowpen Creek via an unnamed ditch

F. Basin and segment – Calcasieu River Basin – Segment 030802

Outfall 005

A. Type of wastewater – the discharge of dust suppression wastewater and stormwater runoff from the south side of the facility including the bark hog, screen, storage and loading areas; west side of the green lumber storage area; the sorter area and the oil storage area.

B. Treatment – Screening

C. Location - at the point of discharge prior to combining with other waters Latitude 30° 28' 48", Longitude 93° 19' 20"

D. Flow – Intermittent – 0.420 MGD

E. Receiving Waters – Cowpen Creek via an unnamed ditch

F. Basin and segment – Calcasieu River Basin – Segment 030802

Outfall 007

A. Discharge Type – treated once-through satellite log wetdeck storage water, stormwater runoff and treated recycle irrigation pond effluent (comprised of log wetdeck water, cooling water, log chain lubrication water, stacker washdown, fire protection pond overflow, stormwater runoff and previously treated sanitary wastewater and non-contact saw filing cooling water from Internal Outfall 107)

B. Location - at the point of discharge from the settling pond prior to combining with other waters, Latitude 30° 28' 32", Longitude 93° 19' 35"

C. Treatment - Sedimentation and screening

D. Flow - Intermittent – 1.756 MGD

E. Receiving Waters – Tiger Glade Creek via an unnamed ditch

F. Basin and segment – Calcasieu River Basin – Segment 030802

Internal Outfall 107

A. Discharge Type – the discharge of treated sanitary wastewater and non-contact saw filing cooling water.

B. Location – at the point of discharge from the treatment facility prior to combining with the waters of Final Output 007, Latitude 30° 28' 31", Longitude 93° 19' 35"

C. Treatment – Mechanical plant and chlorination

D. Flow – Intermittent – 3500 GPD

E. Receiving Waters – Internal discharge to Outfall 007

## V. PROPOSED CHANGES FROM PREVIOUS PERMIT:

Outfall 007 – according to 40 CFR 429 Subparts A and K there is no discharge of process wastewater. Therefore, kiln washwater and kiln condensate has been removed from Outfall 007. This wastewater (stream) will be collected and sent off-site for disposal.

Subsegment 030802 is listed on LDEQ's Final 2006 303(d) list as impaired for dissolved oxygen (DO). However, the source of the impairment is unknown. Therefore, a requirement for reporting this parameter has been added to Outfall 007.

## VI. PERMIT LIMIT RATIONALE

A. Outfalls 004 and 005 – Dust Suppression Wastewater and Stormwater Runoff

**Outfall 004**- the discharge of dust suppression wastewater and stormwater runoff from the north half of the sawmill, the wood chip loading area, the eastern half of the green lumber storage area, the drying kilns, the planer mill roof and the planer shavings loading area, the fuel silos and the finished lumber storage and loading areas.

| PARAMETER | MONTHLY AVERAGE | DAILY MAXIMUM | MONITORING FREQUENCY[1] |
|---|---|---|---|
| Flow-MGD | Report | Report | 1/quarter |
| COD | --- | 200 mg/L | 1/quarter[2] |
| Oil & Grease | --- | 15 mg/L | 1/quarter[2] |
| pH(standard units)[3] | 6.0 | 9.0 | 1/quarter |

1 When discharging

2 Samples required for analysis shall be taken within the first two (2) hours after discharge commences.

3 In the event that a rainfall event has a pH less than 6.0 S.U., the applicant must submit data to LDEQ to verify the actual pH of the rainfall event. pH levels in the stormwater outfalls below 6.0 S.U., but greater than or equal to the actual pH of the single rain event, shall not be considered a violation of this permit limitation (applies to those events were the rainfall has a pH less than 6.0 S.U.)

## Site-Specific Considerations

Flow is established in accordance with LAC 33:IX.2707.I.1.b. Flow shall be monitored at a frequency of once per quarter when discharging and reported on the DMR as an estimate. These requirements have been retained from the current LPDES permit, effective on August 1, 2003.

COD limitations and monitoring requirements are established based on best professional judgment. COD was increased from 100 mg/L to 200 mg/L in NPDES Permit LA0079740 issued February 28, 1997 upon the request of the permittee to allow for elevated naturally occurring background COD levels. This increase is based upon BPJ and is consistent with stormwater outfall COD limitations at similar facilities within EPA Region 6. This limit has been retained in subsequent permits.

Oil and Grease limitations and monitoring requirements are established based on best professional judgment. Oil and Grease shall be monitored at a frequency of once per quarter when discharging and collected as a grab samples. This requirement has been retained from the current LPDES permit, effective on August 1, 2003.

pH is established in accordance with LAC 33:IX.1113.C.1. pH shall be monitored at a frequency of once per quarter when discharging and collected as a grab sample. This requirement has been retained from the current LPDES permit effective on August 1, 2003.

**Outfall 005** – the discharge of dust suppression water and stormwater runoff from the south side of the facility, the bark hog, screen, storage and loading areas; west side of the green lumber storage area; vehicle maintenance area; sorter area; fuel tank area; and the oil storage area.

| PARAMETER | MONTHLY AVERAGE | DAILY MAXIMUM | MONITORING FREQUENCY[1] |
|---|---|---|---|
| Flow-MGD | Report | Report | 1/quarter |
| COD | --- | 250 mg/L | 1/quarter[2] |
| Oil & Grease | --- | 15 mg/L | 1/quarter[2] |
| pH(standard units)[3] | 6.0 | 9.0 | 1/quarter |

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[1] When discharging
[2] Samples required for analysis shall be taken within the first two (2) hours after discharge commences.
[3] In the event that a rainfall event has a pH less than 6.0 S.U., the applicant must submit data to LDEQ to verify the actual pH of the rainfall event. pH levels in the stormwater outfalls below 6.0 S.U., but greater than or equal to the actual pH of the single rain event, shall not be considered a violation of this permit limitation (applies to those events were the rainfall has a pH less than 6.0 S.U.)

**Site-Specific Considerations**

Flow is established in accordance with LAC 33:IX.2707.I.1.b. Flow shall be monitored at a frequency of once per quarter when discharging and reported on the DMR as an estimate. These requirements have been retained from the current LPDES permit, effective on August 1, 2003.

COD limitations and monitoring requirements are established based on best professional judgment. COD was increased from 100 mg/L to 250 mg/L in NPDES Permit LA0079740 issued February 28, 1997. Despite BPJ practices implemented by the facility, COD values were consistently exceeded over the previous five years prior to the permit issued February 28, 1997. The 250 mg/L limitation was calculated by multiplying the geometric mean by 2.13 (an estimate of the 95$^{th}$ percentile). This limitation increase is in accordance with 40 CFR 122.44(l)(2)(i)(B)(1). This limit has been retained in subsequent permits.

Oil and Grease limitations and monitoring requirements are established based on best professional judgment. Oil and Grease shall be monitored at a frequency of once per quarter when discharging and collected as a grab samples. These requirements have been retained from the current LPDES permit effective on August 1, 2003.

pH is established in accordance with LAC 33:IX.1113.C.1. pH shall be monitored at a frequency of once per quarter when discharging and collected as a grab sample. These requirements have been retained from the current LPDES permit, effective on August 1, 2003.

B. Outfall 007 – Satellite Log Storage Settling Pond

**Outfall 007** – treated once-through satellite log wetdeck storage water, stormwater runoff and treated recycle irrigation pond effluent (comprised of log wetdeck water, cooling water, log chain lubrication water, stacker washdown, fire protection pond overflow, stormwater runoff and previously treated sanitary wastewater and non-contact saw filing cooling water from Internal Outfall 107)

| PARAMETER | MONTHLY AVERAGE | DAILY MAXIMUM | MONITORING FREQUENCY |
|---|---|---|---|
| Flow-MGD | Report | Report | 1/Week |
| COD | --- | 300 mg/L | 1/Week |
| Oil & Grease | --- | 15 mg/L | 1/Week |
| Dissolved Oxygen | Report | Report | 1/Week |
| pH(standard units) | 6.0 | 9.0 | 1/Week |

[1] When discharging

## Site-Specific Considerations

Flow is established in accordance with LAC 33:IX.2707.I.1.b. Flow shall be monitored at a frequency of once per quarter when discharging and reported on the DMR as an estimate. This requirement has been retained from the current LPDES permit, effective on August 1, 2003.

COD and Oil and Grease limitations and/or monitoring requirements are established based on best professional judgment. COD and Oil and Grease shall be monitored at a frequency of once per quarter when discharging and collected as a grab samples. These requirements have been retained from the current LPDES permit, effective on August 1, 2003.

Dissolved Oxygen (DO) is established in accordance with BPJ and a recommendation of the Southwest Regional Office (SWRO) of the LDEQ for TMDL data gathering purposes. DO shall be monitored at a frequency of once per quarter when discharging and collected as a grab sample. This requirement has been added due to an impairment listed on LDEQ's Final 2006 303(d) List 303d list.

pH is established in accordance with LAC 33:IX.1113.C.1. pH shall be monitored at a frequency of once per quarter when discharging and collected as a grab sample. This requirement has been retained from the current LPDES permit, effective on August 1, 2003.

C. Internal Outfall 107 – Treated Sanitary and Non-Contact Saw Filing Cooling Water

**Outfall 107** – the discharge of treated sanitary wastewater and non-contact saw filing cooling water.

| PARAMETER | MONTHLY AVERAGE | WEEKLY AVERAGE | MONITORING FREQUENCY |
|---|---|---|---|
| Flow-MGD | Report | Report | 1/6 months |
| $BOD_5$ | --- | 45 mg/L | 1/6 months |
| TSS | --- | 45 mg/L | 1/6 months |
| Fecal Coliform[2] | --- | 400 colonies/100 ml[3] | 1/6 months |
| pH(standard units) | 6.0 | 9.0 | 1/6 months |

1 When discharging

2 Future water quality studies may indicate potential toxicity from the presence of residual chlorine in the treatment facility's effluent. Therefore, the applicant is hereby advised that a future Total Residual Chlorine limitation may be required if chlorine is used as a method of disinfection. In many cases, this becomes a NO MEASURABLE Total Residual Chlorine limitation. If such a limitation were imposed, the applicant would be required to provide for the dechlorination of the effluent prior to discharge.

3 Statistical basis shall be daily maximum in lieu of weekly average.

## Site-Specific Considerations

Flow is established in accordance with LAC 33:IX.2707.I.1.b. Flow shall be monitored at a frequency of once every six (6) months when discharging and reported on the DMR as an estimate. The limits have been retained from the current LPDES permit, effective on August 1, 2003.

$BOD_5$ limitations and monitoring requirements are established in accordance with the LPDES Class I General Permit LAG530000. The limits have been retained from the current LPDES permit, effective on August 1, 2003

TSS limitations and monitoring requirements are established based on Class I General Permit LAG530000. TSS shall be monitored at a frequency of once every six (6) months when discharging and collected as a grab sample. The limits have been retained from the current LPDES permit, effective on August 1, 2003.

Fecal coliform limiting and monitoring requirements are established in accordance with LPDES Class I General Permit LAG530000. Fecal coliform shall be monitored at a frequency of once every six (6) months when discharging and collected as a grab sample. These requirements have been retained from the current LPDES permit effective on August 1, 2003.

pH is established in accordance with LAC 33:IX.1113.C.1. pH shall be monitored at a frequency of once per quarter when discharging and collected as a grab sample. The monitoring frequency was changed to reflect a request from the permittee to match the monitoring frequency requirements of similar outfalls at this facility and other similar facilities. The limits have been retained from the current LPDES permit, effective on August 1, 2003.

## VII. TMDL Waterbodies:

The discharges from this facility include the discharge of dust suppression wastewater, stormwater runoff (Outfall 004 and 005); and treated once-through satellite log storage irrigation water, stormwater runoff, and treated wet deck recycle pond effluent. (Treated wet deck recycle pond effluent is comprised of treated recycled log irrigation water, cooling water, log chain lubrication water, stacker washdown, fire protection pond overflow, stormwater runoff and previously treated sanitary wastewater and non-contact saw filing cooling water from Internal Outfall 107).

Subsegment 030802, Hickory Branch and headwaters to West Fork Calcasieu River is listed on LDEQ's Final 2006 303(d) List as impaired for total fecal coliform, mercury and dissolved oxygen (DO). To date no TMDLs have been completed for this waterbody. A reopener clause will be established in the permit to allow for the requirement of more stringent effluent limitations and requirements as imposed by a TMDL. Until completion of TMDLs for the Calcasieu River Basin, those suspected causes for impairment, which are not directly attributed to the point source category, have been eliminated in the formulation of effluent limitations and other requirements of this permit.

$BOD_5$ limitations of 30 mg/L monthly average and 45 mg/L weekly average and fecal coliform limitations of 400 colonies per/100 ml as a daily maximum have been established for Internal Outfall 107. Limitations consistent with those established in general permits have historically been considered protective of waters of the state and this Office has determined that discharge from this outfall should not cause or contribute to further DO impairment in the receiving stream. The monitoring frequency has been

established at once per every six (6) months based on Best Professional Judgment and is consistent with the Class I Sanitary General Permit, LAG530000.

Additionally, a report only requirement for dissolved oxygen was added to Outfall 007 for data gathering purposes. This information will be used for any further TMDL development.

Additionally, suspected causes of impairment by the discharge of pollutants was determined to not be discharged at a level which would cause, have the reasonable potential to cause or contribute to an excursion above any present state water quality standard.

## VIII. COMPLIANCE HISTORY/DMR REVIEW:

A compliance history and DMR review was conducted including the period of January 2005 through January 2009.

The permittee exceeded the daily max of 15mg/L for Oil and Grease from Outfall 007 in January 2005. This excursion of 17mg/L was self-reported on February 1, 2005, upon awareness from contracted lab.

A facility inspection was conducted on May 10, 2007. The only area of concern noted was the self-reported exceedance of Oil and Grease limit in January 2005.

## IX. ENDANGERED SPECIES:

The receiving waterbody, Subsegment No. 030802 of the Calcasieu River Basin is not listed in Section II.2 of the Implementation Strategy as requiring consultation with the U.S. Fish and Wildlife Service (FWS). This strategy was submitted with a letter dated November 17, 2008 from Rieck (FWS) to Nolan (LDEQ). Therefore, in accordance with the Memorandum of Understanding between the LDEQ and the FWS, no further informal (Section 7, Endangered Species Act) consultation is required. It was determined that the issuance of the LPDES permit is not likely to have an adverse effect on any endangered or candidate species or the critical habitat. The effluent limitations established in the permit ensure protection of aquatic life and maintenance of the receiving water as aquatic habitat.

## X. HISTORIC SITES

The discharge is from an existing facility, which does not include an expansion on undisturbed soils. Therefore, there should be no potential effect to sites or properties on or eligible for listing on the National Register of Historic Places, and in accordance with the "Memorandum of Understanding for the Protection of Historic Properties in

Louisiana Regarding LPDES Permits" no consultation with the Louisiana State Historic Preservation Officer is required.

## XI. TENTATIVE DETERMINATION

Based on preliminary staff review, the Department of Environmental Quality has made a tentative determination to reissue a permit for the discharge described in the application.

## XI. PUBLIC NOTICES

Upon publication of the public notice, a public comment period shall begin on the date of publication and last for at least 30 days thereafter. During this period, any interested persons may submit written comments on the draft permit and may request a public hearing to clarify issues involved in the permit decision at this Office's address on the first page of the statement of basis. A request for a public hearing shall be in writing and shall state the nature of the issues proposed to be raised in the hearing.

Public notice to be published in:

Local newspaper of general circulation

Office of Environmental Services Public Notice Mailing List